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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,123	09/23/2003	Katsuo Yamada	3557G-000042	2883

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EXAMINER

MAI, ANH T

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/669,123

Applicant(s)

YAMADA ET AL.

Examiner

Anh T. Mai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-11 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Revision (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/16/03

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto et al. [JP6-96971] in view of Toshio [JP 4-338616].

Makoto discloses a coil formed of conductor 2-1, 2-2 spirally wound in a cylinder shape so that the wider surfaces thereof come flush with each other; insulated bobbin 5-2 for mounting said coil thereon; a core 1-1 inserted into the bobbin to form a closed magnetic circuit [figure 1A]. Makoto discloses the claimed invention except for the conductor having a band-shape. Toshio discloses coil 10 having band-shape conductor with the wider surface come flush with each other into rectangular staggered patterns and the wider surfaces for contacting to mounting surface [figure 1]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use band-shape conductor as taught by Toshio to the element of Makoto. The motivation would have been to facilitate the mounting purposes. Therefore, it would have been obvious to combine Toshio with Makoto.

With respect to claim 6, the Makoto magnetic circuit having two C-shaped cores instead of C-I cores as recited in the claim. It would have been obvious to one of ordinary skill in the art to have different core shape to provide a closed magnetic circuit. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) MPEP 2144.04

With respect to claim 8, bobbin 5 having tabs 5-4, 6-3 for fixing to the PCB.

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With respect to claims 9-10, recitation of “transformer” and “choke coil” is intended use of the invention. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

With respect to claim 11, parallel/series connections are conventional connection of the transformer/choke coil as discloses by Makoto.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto et al. in view of Toshio and further in view of Janssen et al. [US2002/0079775A1].

Makoto and Toshio disclose the claimed invention except for the material of conductor being copper. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use copper conductor [Janssen’s page 1, para 0003]. The motivation would have been such high electrical conductive material. Therefore, it would have been obvious to combine Janssen with Makoto in view of Toshio.

Allowable Subject Matter

4. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 5 recites inter alia, *middle portion of conductor forming the coil is formed as a middle tap-out terminal of the coil*.

The references of record do not teach or suggest the aforementioned limitation, nor would it be obvious to modify those references to include such limitation.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Elliott [4562382], Rich, III et al. [4507640].

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T. Mai whose telephone number is 571-272-1995. The examiner can normally be reached on 5/4/9 Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**ANH MAI
PRIMARY EXAMINER**